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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/330,763	06/11/1999	THOMAS D. TAGGART	STEU-2666	9804

5409 7590 05/22/2002

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EXAMINER

SOUBRA, IMAD

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 05/22/2002

13

Please find below and/or attached an Office communication concerning this application or proceeding.

ME-13

Office Action Summary

Application No.

09/330,763

Applicant(s)

TAGGART, THOMAS D.

Examiner

Imad Soubra

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-33 and 35-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-33 and 35-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1, 3, 17, 33, 38 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. When using the language "vary by at least a ratio of .1 ppm / .5 ppm" sounds very confusing to the Examiner. What does the applicant exactly mean? When using the "/", does that mean and/or? Appropriate clarification is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 17-22, 27, 29, 33-34 and 36-39 are rejected under 35 U.S.C. 102(b) as anticipated Kelbrick et al. Kelbrick et al intrinsically discloses a similar devise to sterilize containers using multiple numbers of nozzle sprayed with hydrogen peroxide at different levels of concentration (see entire document). Kelbrick et al teaches that in Figures 1-3, the packaging machine 10 has an air flow system which introduces filtered aseptic air into the cabinet 11 and

maintains a positive air pressure relative to atmospheric pressure in the aseptic zone 30 of the machine 10; this positive pressure is provided principally by a blower 32 located in the top portion of the machine 10; the blower provides a flow of air into the three dual HEPA filter assemblies 35-37 spaced along the top of the machine 10; thus, the product filling and container sealing stations 21 and 25 are at a pressure P1, and the container sterilization station 17 is at a pressure P3; an internal portion of the lidstock feed assembly 38 is partitioned from the container sealing station 25 and provided with its own air supply from the HEPA filter assembly 37 directly above it, and the reference provides greater detail of the process that occurs on the machine (column 2, line 63-column 3, line 30). Kelbrick et al further teaches that all the valves 61, 65 and 66 closed, the conveyor 13 is engaged at a slow speed, and the introduction of hydrogen peroxide into the cabinet 11 is begun; in order to expose all surfaces of the conveyor 13 to hydrogen peroxide, the conveyor 13 moves at low speed throughout the sterilization procedure; an atomized spray of at least 33% aqueous hydrogen peroxide is introduced into the elbow 52 by means of the spray nozzle 71; as the valve 61 is closed, the hydrogen peroxide laden hot air in the manifold 57 proceeds through the plurality of nozzles 19 to introduce a fog of hydrogen peroxide into the container sterilizing station (column 4, line 66-column 5, line 17). Kelbrick et al also teaches that the concentration of hydrogen peroxide can be reduced to 0.5 ppm (column 6, lines 1-5).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- Determining the scope and contents of the prior art.
- Ascertaining the differences between the prior art and the claims at issue.
- Resolving the level of ordinary skill in the pertinent art.

Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 16 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelbrick in view of Petho et al. However, Kelbrick fails to disclose that bottles can be sterilized using this method. On the other hand, Petho et al intrinsically discloses that bottles are sterilized by using a similar method as taught by Kelbrick et al. containers or bottles (see abstract). The motivation for combining the two references would to show that containers, bottles and jars are known objects that sterilized and but also to show that the Kelbrick reference describes containers that hold edible drinks which is an analogous definition of bottles. So both references do read on those claims. Therefore, it would have

been obvious of one having ordinary skill in the art at the time that the invention was made to substitute in the bottles of Petho instead of the container of Kelbrick.

4. Claims 23-26, 28 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelbrick. It would have been obvious to modify the invention so that the device can have four nozzles spraying the hydrogen peroxide gas at different rates where the concentrations differ in each nozzle at the time that the invention was made. Therefore, it would have been obvious of one having ordinary skill in the art at the time that the invention was made to modify the device in order to effectively sterilize the bottles, and to inform the person who is skilled in the art what the values may be.

5. Claims 3, 5-16 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelbrick et al in view of Petho et al as applied to claims 1-2 and 33 above, and further in view of Hoshino. However, the other two references fail to disclose a control system. On the other hand, the patent of Hoshino teaches a similar control system attached to the nozzle. Hoshino teaches that in Figure 26 is a more detailed representation of the means for carrying the above outlined scheme into practice; although this figure shows only means for detecting the spray density in the upper sterilizing chamber 39e, it is understood that the spray density in the lower sterilizing chamber can be ascertained by exactly identical means; alternatively the lower sterilizing chamber spray density

may simply be estimated from the results of detection of the upper sterilizing chamber spray density (column 24, lines 44-50). The motivation and/or reason for combining the three references would be to show that the results of this comparison provide reliable indications as to the overspraying, underspraying, and proper spraying of each container (column 24, lines 32-40). Therefore, it would have been obvious of one having ordinary skill in the art at the time that the invention was made to incorporate the control system of Hoshino into the other two references to control the amount of sterilant that is being sprayed onto the containers and/or cups.

Applicant's Arguments

6. Kelbrick et al fail to teach or suggest, inter alia, "a plurality of zones within a sterilization tunnel having different sterilant concentration levels introduced therein wherein the sterilant concentration levels vary by at least a ratio of .1 ppm / .5 ppm," as recited in claim 1.

7. The present invention discloses a plurality of concentration zones whereby different sterilant concentrations can be introduced in different zones.

Response to Applicant's Arguments

6. In the Kelbrick reference, the nozzles 19 initially spray concentrated hydrogen peroxide to sterilize the containers, lids and cabinet. After a given period of time, hot air is sprayed through the same nozzles 19 to dilute the mixture until the

sterilant essentially consists of all hot air (column 5, line 53 – column 6, line 9). The initial concentration of hydrogen peroxide is 33% and eventually the hydrogen peroxide is diluted until the concentration is 0, so therefore the range would be intrinsically from 33% to 0. The range that the applicant is claiming which is .1 ppm and/or 0.5 ppm reads onto the range in the Kelbrick reference.

7. The Kelbrick reference inherently teaches the zones of different concentration of hydrogen peroxide starting from the nozzle to the containers, lids and cabinet. The concentration of hydrogen peroxide from the nozzles would be different from the containers, lids and cabinet since the concentration of hydrogen peroxide are higher from the nozzle and lower at the object to be sterilized. Because of different concentration of hydrogen peroxide, zones are inherently created on the vertical axis in the Kelbrick reference. In the applicant's claims, nothing is mentioned on which axis that the zones are created. Thus, the rejection is proper and still is sustained.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory

Application/Control Number: 09/330,763

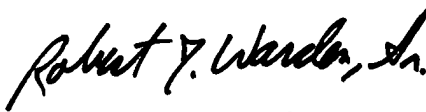
Art Unit: 1744

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Imad Soubra whose telephone number is (703) 305-3541. The examiner can normally be reached on 8:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Warden can be reached on (703) 308-2920. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1193.

Imad Soubra
May 9, 2002


ROBERT J. WARDEN, SR.
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